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(54) **ROBUST FOREIGN OBJECTS DETECTION**

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(57) **ABSTRACT**

An apparatus and method for performing foreign object detection for a wireless power transmitter. A matching network and transmit coil are energized, and a resonance is excited. The resonance is allowed to decay. A temporal characteristic of the decay is measured. The temporal characteristic is analyzed to determine whether a foreign object is coupled to an electromagnetic field generated by the transmit coil.